Differential Equations

Week 6

Monday September 29 : *Worksheet 13*

> **Euler's Method for Systems.** It's baaaaaaack! We will look at how to implement the numerical technique Euler's Method when one has a linear system of ODEs and initial conditions $\dfrac{d\vec{x}}{dt} = \vec{F}(\vec{x}), \quad \vec{x}(0) = \vec{x}_0$.
>
> Reading:
>
> > Blanchard, Section 2.4
>
> Homework #14:
>
> > Blanchard, Section 2.3: 3, 4, 7, 11.
> >
> > Blanchard, Section 2.4: 2, 4.
> >
> > Reading Quiz #3
> >
> > Take Home Quiz #3 DUE.

Wednesday October 1 : *Worksheet 14*

> **Review for Exam #1** We'll review the material from the first two chapters of the book.
>
> Reading:
>
> > Blanchard, Chapter 2
>
> Homework #14:
>
> > Blanchard, Chapter 2 Review: 2, 10, 11, 13, 14, 19, 20, 28, 30.

Friday October 3 : *Exam #1*

> **First Order DEs and First-Order Systems.** The first exam is on the material in the first two chapters of Blanchard, Devaney & Hall.
>
> > Reading:
> >
> > > Blanchard, Chapter 1 and Chapter 2